

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A bipolar electrostatic chuck which has a first electrode and a second electrode in an interior of an insulating material, generates at least an attracting performance by a gradient force, and attracts a sample by allowing ~~and allows~~ a surface of the insulating material to function as a sample attracting plane, characterized in that:

the insulating material is formed by laminating an upper insulating layer, ~~has the first electrode, an interelectrode insulating layer, and the second electrode,~~ and a lower insulating layer in the order of distance from the sample attracting plane in a depth direction of the insulating material; and

when the sample attracting plane is viewed in a depth direction, the second electrode has an area that is not overlapped with the first electrode, a plurality of first electrodes and a plurality of second electrodes being alternately arranged in a normal line direction in which the area that is not overlapped is crossed a plurality of times of the sample attracting plane.

2-3. (Cancelled)

4. (Currently Amended) The bipolar electrostatic chuck according to claim-3 ~~1~~, wherein:
the first electrode is formed in a band-like comb teeth configuration;
the second electrode is formed in a band-like comb teeth configuration;
when the sample attracting plane is viewed in the depth direction, the band-like comb teeth of the first and second electrodes are alternately arranged; and

the second electrode is not overlapped with the first electrode ~~in the normal line direction of the sample attracting plane.~~

5. (Cancelled)

6. (Currently Amended) The bipolar electrostatic chuck according to claim 5 1, wherein:
the first electrode is formed in a band-like comb teeth configuration;
the second electrode is formed in a plane having a given planar area; and
a part of the second electrode is overlapped with the first electrode when the ~~in the normal line direction of the sample attracting plane~~ is viewed in the depth direction.

7. (Currently Amended) The bipolar electrostatic chuck according to claim ~~5~~ 1, wherein:
the first electrode is formed in a curb configuration;
the second electrode is formed in a plane having a given planar area; and
a part of the second electrode is overlapped with the first electrode when ~~in the normal line direction of the sample attracting plane~~ is viewed in the depth direction.

8. (Currently Amended) The bipolar electrostatic chuck according to claim 5 1, wherein:
the first electrode is formed in a mesh configuration having a plurality of openings each within a given area;
~~of which is shaped in a circle, a triangle, a square, a rectangle, or a polygon more than a quadrangle in number of corners within a given area;~~

the second electrode is formed in a plane having a given planar area; and

a part of the second electrode is overlapped with the first electrode ~~in the normal line direction of~~when the sample attracting plane is viewed in the depth direction.

9. (Cancelled)

10. (Currently Amended) The bipolar electrostatic chuck according to claim 5 1, wherein:

the first electrode centers on a circular portion having a given circular area, has a plurality of first annular portion that is-are concentrically disposed at a given interval, and has a first connection portion that connects from the circular portion and the first annular portions to each other; and has ~~a first connection portion that connects the circular portion and the first annular portion;~~ and

the second electrode has a plurality of second annular portions ~~is formed in an annular configuration~~ having a width smaller than ~~an the interval which are concentrically disposed,~~ is formed to have a second connection portion that connects the second annular portions to each other, the first annular portions and the second annular portions being alternately disposed when between the circular portion and the first annular portion of the first electrode, and is disposed between the circular portion and the first annular portion of the first electrode when viewed in the normal line direction of the sample attracting plane is viewed in the depth direction.

11. (Currently Amended) The bipolar electrostatic chuck according to claim ~~5~~ 1, wherein:

the first electrode centers on a circular portion having a given circular area, has a plurality of first annular portion-portions that ~~is~~ are concentrically disposed at a given interval, ~~from the circular portion,~~ and has a first connection portion that connects the circular portion and the first annular ~~portion~~ portions to each other; and

the second electrode has a plurality of second annular portions ~~is formed in an annular configuration~~ having a width same as ~~an~~ the interval which are concentrically disposed, is formed to have a second connection portion that connects the second annular portions to each other, the first annular portions and the second annular portions being alternately disposed when between the circular portion and the first annular portion of the first electrode, and is disposed between the circular portion and the first annular portion of the first electrode when viewed in the normal line direction of the sample attracting plane is viewed in the depth direction.

12. (Cancelled)

13. (Currently Amended) The bipolar electrostatic chuck according to claim 1 ~~or 2~~, wherein a distance between the first electrode and the second electrode is equal to or more than 1 μm and equal to or less than 1000 μm .

14. (Currently Amended) The bipolar electrostatic chuck according to claim 1 ~~or 2~~, wherein:

the first electrode is formed in a band-like comb teeth configuration; and

in the case where a band-like electrode width z of the first electrode and an interelectrode gap z are made equal to each other, z is in a range of 0.15 to 0.5 mm.

15. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein the interelectrode insulating layer is formed of a resin layer made of one or more resins selected from the group consisting of polyimide, polyamide-imide, polyester, polyethylene terephthalate, epoxy, and acryl.

16. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein the resin layer is formed of one or more resin films.

17. (Currently Amended) The bipolar electrostatic chuck according to claim 1 ~~or~~ 2, wherein the interelectrode insulating layer is formed of a ceramic layer made of one or more elements selected from the group consisting of aluminum oxide, aluminum nitride, silicon carbide, silicon nitride, zirconia, and titania.

18. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein the interelectrode insulating layer is formed of one or two elements selected from the group consisting of silicon and silicon dioxide.

19. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein:

an electrically conductive layer is further formed on the surface of the insulating material;
and
the surface of the electrically conductive layer serves as the sample attracting plane.

20. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein a sectional configuration of a part or all of the first electrode taken along the ~~normal line~~ depth direction of the sample attracting plane comprises a configuration selected from the group consisting of a rectangle, a square, a circle, and a triangle.

21. (Currently Amended) The bipolar electrostatic chuck according to claim 1-~~or~~-2, wherein a sectional configuration of a part or all of the second electrode taken along the ~~normal line~~ depth direction of the sample attracting plane comprises a configuration selected from the group consisting of a rectangle, a square, a circle, and a triangle.